



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

October 18, 2007

MEMORANDUM

SUBJECT: Effects Determinations for Bensulide Relative to the California Red-Legged Frog and Designated Critical Habitat

FROM: Donna Randall  
ERB II  
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10/18/07

TO: Arthur-Jean B. Williams, Acting Director  
Environmental Fate and Effects Division

Attached is the assessment of potential direct and indirect effects to the California red-legged frog (CRLF) and potential adverse modification to designated critical habitat from uses of the herbicide bensulide. While the Endangered Species Act requires we assess uses of pesticides relative to any potentially affected listed species, this assessment focuses only on the CRLF, including designated critical habitat, addressing provisions of a settlement agreement entered into by the federal government to resolve claims made by plaintiffs against EPA in a court case (CBD v. EPA<sup>1</sup>).

The attached assessment was conducted consistent with the Agency's Overview Document<sup>2</sup>. Effects determinations for this assessment are summarized below:

- A "Likely to Adversely Affect" ("LAA") determination was concluded for direct effects to the aquatic-phase CRLF for all non-food uses (golf course turf, residential lawns, nursery grown ornamental and shade trees, nursery grown ornamental ground cover, herbaceous plants, woody shrubs and vines, and right-of-ways) and food crop uses (cole crops, mustards and leafy greens, fruiting vegetables, melons and cucurbits, root vegetables, peppers, eggplant, and chrysanthemum (garland)) due to exceedence of the acute listed species level of concern (LOC).
- A "LAA" determination was concluded for the aquatic-phase CRLF for indirect effects from reduction in aquatic invertebrate reproduction from all non-food uses and food crop uses due to the presumption of chronic risks in the absence of chronic toxicity data to determine otherwise.

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<sup>1</sup> Settlement agreement of October 20, 2006: Center for Biological Diversity v. United States Environmental Protection Agency. Civ. No: 02-1580-JSW(JL)).

<sup>2</sup> Overview of the Ecological Risk Assessment: Process in the Office of Pesticide Programs, U.S. Environmental Protection Agency: Endangered and Threatened Species Effects Determinations: January 23, 2004.

- A “Not Likely to Adversely Affect” (“NLAA”) determination was concluded for the aquatic-phase CRLF for indirect effects from reduction in fish and amphibian prey items for all non-food uses and food crop uses based on insignificant effects on acute survival and no exceedence of the chronic LOC.
- A “No Effect” (“NE”) determination was concluded for the aquatic-phase CRLF for indirect effects from reduction in aquatic plant food resources for all non-food uses and food crop uses based on no exceedence of listed or non-listed species LOC.
- A “LAA” determination was concluded for the terrestrial-phase CRLF for direct acute and chronic effects for all non-food uses and food crop uses based on exceedence of acute listed and chronic LOC values based on both using ingestion rates for birds as an exposure surrogate for the terrestrial-phase CRLF and a refinement of exposure based on amphibian ingestion rates.
- A “LAA” determination was concluded for the terrestrial-phase CRLF for indirect effects from reduction of the terrestrial mammalian, amphibian, and terrestrial insect prey base for all non-food uses and food crop uses based on exceedence of acute listed and chronic LOC values.
- A “LAA” determination was reached for the reduction or modification of aquatic critical habitat components for all non-food uses and food crop uses based on exceedence of LOC for riparian (semi-aquatic) vegetation and presumptive chronic risks to the aquatic invertebrate prey base.
- A “LAA” determination was reached for the reduction or modification of terrestrial critical habitat components for all non-food uses and food crop uses based on exceedence of LOC for riparian (semi-aquatic) and terrestrial vegetation and risks to the terrestrial invertebrate prey base.

As required by the Alternative Consultation Agreement EPA entered into with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (Services), I have been trained by the Services to make such determinations. Additionally, this assessment was subjected to internal Agency peer review throughout its development.

Please let me know if you have any questions regarding this assessment and effects determination for bensulide relative to the CRLF and its designated critical habitat.

cc: Steven Bradbury  
Debbie Edwards

Attachments